

REMARKS

I. Introduction

Claims 9 to 18 are currently pending in the present application. Claims 10-13 and 16 have been amended. Claims 9-14 and 18 are rejected. In view of the foregoing amendments and the following remarks, it is respectfully submitted that all of the presently pending claims are allowable, and reconsideration of the present application is respectfully requested.

Applicants note with appreciation the acknowledgment of the claim for foreign priority and the acknowledgment that all certified copies of the priority documents have been received.

Applicants thank the Examiner for considering the previously filed Information Disclosure Statement, PTO-1449 paper and cited reference.

Applicants thank the Examiner for indicating that claims 15 to 17 include allowable subject matter.

II. Objection to claim 16

Claim 16 has been amended to obviate the Examiner's objection. Withdrawal of this objection is therefore respectfully requested.

III. Rejection of Claims 9-14 and 18 Under 35 U.S.C. § 102(b)

Claims 9-14 and 18 were rejected under 35 U.S.C. § 102(b) as anticipated by U.S. Patent No. 5,930,660 ("Davis"). It is respectfully submitted that Davis does not anticipate the present claims for the following reasons.

Claim 9 recites "a pn transition; and a chip having an edge region . . . wherein . . . the boundary surface of the pn transition is non-parallel to the main chip plane at the edge region." The Examiner asserts that element 14 of Fig. 4 in Davis, which is a boundary between layers 10 and 12, discloses the claimed pn transition. However, all parts of boundary 14 are parallel to the main chip plane. While edges of layers 10 and 12 of Davis may each be individually sloped, no part of boundary 14 is sloped. Rather, boundary 14 is level and parallel to the main chip plane at all points. Accordingly, Davis does not disclose, or even suggest, a boundary surface of a pn transition that is non-parallel to the main chip plane.

For at least the foregoing reason, Davis does not disclose, or even suggest, all of the features recited in claim 9. It is therefore respectfully submitted that Davis does not anticipate claim 9.

Claim 11, which has been amended to be in independent form, includes the subject matter recited in claim 9. It is therefore respectfully submitted that Davis does not anticipate claim 9 for at least the same reasons set forth above in support of the patentability of claim 9.

Furthermore, claim 11 recites “wherein the boundary surface of the pn transition includes a positive beveling angle at the edge region.” As set forth above in support of the patentability of claim 9, no part of the boundary 14 of Davis is curved. Boundary 14 is not beveled and therefore does not include a beveling angle. Instead, edges of layers 10 and 12 are curved. The angle pointed out by the Examiner is formed by a sloping of an edge surface of layers 10 and 12, but it is not formed by a beveling of the boundary 14, and therefore it is not a beveling angle of the boundary 14. Accordingly, Davis does not disclose, or even suggest, a boundary surface of a pn transition that includes a positive beveling angle at an edge region. For this additional reason, it is respectfully submitted that Davis does not anticipate claim 11.

As for dependent claims 10, 12, and 13, which have been amended to depend from claim 11, and therefore include all of the features recited in claim 11, it is respectfully submitted that Davis does not anticipate these dependent claims for the same reasons set forth above in support of the patentability of claim 11.

Claim 14 recites “forming a pn transition; forming a chip having an edge region . . . wherein a boundary surface of the pn transition is non-parallel to the main chip plane at the edge region.” As set forth above in support of the patentability of claim 9, Davis does not disclose, or even suggest, these features. It is therefore respectfully submitted that Davis does not anticipate claim 14.

As for claim 18, which depends from claim 14, and therefore includes all of the features recited in claim 14, it is respectfully submitted that Davis does not anticipate this dependent claim for the same reasons set forth above in support of the patentability of claim 14.

Withdrawal of this rejection is therefore respectfully requested.

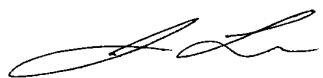
IV. Claims 15-17

The Examiner indicated that claims 15-17 would be allowable if rewritten in independent form to including all of the limitations of the base claim and any intervening claims. Applicants note that claims 15-17 all ultimately depend from claim 14, which has been explained to be in allowable condition. Therefore, claims 15-17 are similarly allowable in their present dependent form.

Conclusion

In light of the foregoing, it is respectfully submitted that all of the presently pending claims are in condition for allowance. Prompt reconsideration and allowance of the present application are therefore earnestly solicited.

Respectfully submitted,

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